RI Environmental Monitoring Collaborative

2nd Meeting – November 8, 2004, 10:00 AM – 1:00PM
Coastal Institute, Large Conference Room, URI Bay Campus, Narragansett

Attendees: Collaborative members – Peter August, *Coastal Institute*, Chair; Sue Kiernan, *DEM*; Art Ganz, *DEM DFW*; Ernest Julian, *Dept. Health*; Linda Green, *Watershed Watch*; John Motta, *NBC*; John Stachelhaus, *DOA/RIGIS*; Others: Connie Carie (DEM/OWR); Dave Burnett, (RIDOH); Peg Parker, (RI House Policy); Taylor Ellis (NBC); Chip Young, (CRC); Jim Campbell (USGS); Don Pryor (Brown); Chris Deacutis (NBEP); Marci Cole (Save the Bay); John Torgan (Save the Bay); Ames B. Colt (RI Sea Grant); Hal Walker (EPA-Narragansett); Elizabeth Johnson (NPS); Bryan Milstead (NPS); David Gregg (RI Natural History Survey); Meg Kerr (RI Rivers Council); Richard Ribb (NBEP); Chuck LaBash, *URI Environmental Data Center;* and Erin Myers, *Coastal Institute*

Meeting Summary

1. **Additions to Monitoring Database**
   - Inventory existing monitoring programs. Send information about additional monitoring programs to Pete within a few days for him to update the database.

2. **DEM Monitoring Plan**
   - Pete August reminds everyone that the DEM monitoring plan will not include all of the important questions of the collaborative. This is a multi-organizational collaborative. If an important issues come up that do not fit into one organization's goal, it is the collaborative's job to figure out how to tackle it.
   - Update by Sue Kiernan
     - DEM is currently working on the difficult task of fleshing out the budget to accompany their plan
     - Quantify what amount of waters will get evaluated? Cannot do that up front. Goal is to have all waters evaluated within 5 years, except fish tissue. Fish tissue data needs to be included in order to be considered "assessed" by the EPA. There will be mercury problems. We cannot do anything about the mercury levels in the fish now. The only response is to prevent people from eating contaminated fish. There is a long-term mercury reduction plan.
     - Plan for rotating monitoring applies to fresh water only
     - Hal Walker (EPA-Narragansett) contributed that the National Coastal Assessment has saltwater fish data. The first few years of this data is available now.
   - Water Quality vs. Terrestrial
     - There is a project dealing with fresh water wetlands. Coastal wetlands can be included.
     - Sediments and groundwater will be looked at in 1 year. Currently there is not federal monitoring of groundwater
     - Questions of benthic habitat and flora, submerged aquatic vegetation, bioinvasives, nuisance plants, productivity in the Bay
   - Research vs. monitoring

  - What do we use for baseline data that federal bodies need to fulfill their duty to "manage and protect" and what is just research?
  - Peter August: The collaborative was not created to entertain research proposals. Must stand behind tried and true research protocol and incorporate appropriate research ideas
  - Marci Cole: Data should be publicly available within a reasonable timeframe. Data should be policy relevant. Monitoring plans should be transparent and consistent
  - Pete August: "If data can't be broadly distributed in a timely manner, we have no business supporting it."
- Understanding bio-response of the Bay
  - Research vs. monitoring. There is an important network of stations in the Bay, but they are expensive. Some of the information gathered by the stations is not directly used in management. It is unclear how these should be used as an indicator.
  - Chris Deacutis: Chesapeake may provide an example of how to use chlorophyll data.
  - In Narragansett Bay, there are only 2 monitoring stations. Both are down Bay. These are not enough.
  - "Nu Shuttle." Mark Berman is open to making the data more readily available, but he has not figured out the most effective way to do so just yet.
- Rivers
  - Large ones monitored annually: Blackstone, Pawtuxet, Pawcatuck
  - Smaller streams and lakes monitored on rotating basis approach
  - Look at past data sets to determine how frequently we get out there.
  - Blackstone and Pawtuxet are discharge points for treated water.
- Map
  - Goal is to break up the state so that it can be covered in 4-5 years. Schedule can be revised.
  - Finishing a demonstration project showing design
  - Once per 4-5 years is enough for trend analysis. Other states are using this timeline. There will be some data collected more frequently for known problem areas. Comprehensive data sets will be collected every 4-5 years.
- Lakes and Ponds
- Modeling
  - Modeling could drive how we monitor and what we research.
  - John Motta and Taylor Ellis (NBC): GSO will develop model of Bay over the next 2 years. Providence River in the first year, Seekonk River in the second year.
  - RAMS model
  - ADCP current circulation data
  - Hydrodynamic model that can be linked to rivers
  - Sue: DEM tried modeling, but was unable to calibrate. Has not worked.
  - Ames B. Colt (Sea Grant): Issue of modeling will be addressed.
  - Ernest Julian (DOH): would be helpful to have bacteria information included in GSO models.
  - John and Taylor: Models will look at dissolved oxygen and nutrients, not bacteria.
- Data Management and Synthesis

  - Strategy for the DEM plan is to show the EPA how DEM is supporting mandates of the Clean Water Act.
  - The collaborative's goal is broader than DEM requirement to EPA.
  - How to make data available?
    - There is no comprehensive archive. There is no way for someone to access all existing data sets. Better to create a portal site that draws on many databases rather than compile a single data warehouse.
    - See example: "Window to my environment" http://www.epa.gov/enviro/wme/
    - The DEM is not currently able to post their database on the web. Is it efficient to post information that will later require changing?
    - Requests to interpret data are more frequent than requests for raw data.
    - PA: RIEMC has to find a way to make DEM's data available in a timely fashion
  - Schedule for availability of data
    - PA: reminder that one of the goals of the RIEMC is to make the data available in a reasonable time frame.
    - Watershed watch: 1.5 weeks, up to 9 months, and up to 1 year for the different kinds of data. All dictated by manpower
    - Hal Walker (EPA-Narragansett): 2 years. "Log jam with community data"
    - John Stachelhaus (RIGIS): RIGIS is working towards dealing with data geographically and by topic.
    - Summary: there is a need to hire experts to figure out how to get data on the web and usable.
- DEM review process will continue
  - As document is refined, it will be made available to the RIEMC
  - Sue prefers to finish the basic approach and strategies soon and keep the rest adaptable so there can be movement towards implementation.

3. Land Use

- Can use remote sensing for land use and land cover
- John Stachelhaus: "Can you get land use out of remote sensing?"
  - Impervious surfaces: yes
  - Land Cover: yes
  - Land use: questionable
- Impervious surface and forest cover are relevant monitoring topics
  - Connecticut has good model for monitoring impervious surfaces: CLEARS
- Historical assessment is not planned right now
- Need for cooperation regarding different organizations' needs in order to ensure maximum cost-effectiveness of flying the state
- Habitat and Biota (David Gregg)
  - Indicators need a lot of work. State wants us to include community-based assessments, riparian communities, streams, and species based assessments.
  - Invasive species need more consideration
  - There is currently some coordination among NRS, Remote Sensing Lab, EDC, land trusts and Nature Conservancy to provide capacity for ecological assessments.
  - Sue: Should make a strong link to Fish and Wildlife Conservation for wildlife coordination.

    - Aquatic macroinvertebrates: resume or sustain existing programs
- Subaqueous soil and benthic habitat mapping
    - Develop a protocol to map subaqueous environments. There is a conference on November 19th.
    - Check out online resources for more info: http://www.ci.uri.edu/Projects/RI-Monitoring/OnlineResources.html

4. Integration and Synthesis

- Art Ganz (DEM-Marine): We share the common goal of monitoring, but our end product is different. We may have a focused view, but our raw data may be useful to others.
- Meg Kerr (RI Rivers Council): We must support local groups that are working. Keep local organizations and planning networks in mind.
- Sue: There is pressure for more indicators. Must decide what subset we focus on.
- PA: How do we engage the experts
- David Gregg: report will be political. Reports will determine how funds are directed.
- Report might not be equally flattering
- Sue suggested beginning an annual presentation/consortium to facilitate conversation about findings and plans. Maryland has a similar annual consortium
- Peg: the collaborative feeds into the Coordination Team that then makes system level planning and implementation. The collaborative must keep in mind what the Coordination Team needs to do their job in planning.
    - Consider: "What is the practicality of what you are proposing? How does it affect management? How can we make most use of what we already have?"
    - Coordination Team will outline a management plan
    - The collaborative should keep in mind what a systems level plan will need to manage watersheds
    - The collaborative should keep an eye to the Environmental Report Card and the 4-year cycle of the State of the Bay report.
    - Must figure out what is current baseline. Where are we now? What do we need to monitor over the next 4 years? What are the priorities?
- John Torgan (Save the Bay): Must address problem of subjectivity of indicators. It is important to get a report out and start collecting feedback, and to resist getting stuck perfecting the report.
- PA: Is there an existing report in a different region that we can mimic in creating our State of the Watershed Report?
- Hal Walker: Process is as important as product. Can we make documentation more streamlined?
- Watershed includes Massachusetts. Satellite imagery for Massachusetts is available. DEM will highlight where and how Massachusetts can cooperate
- The collaborative's area of interest includes also ponds, rivers, and territorial seas out to 3 nautical miles
- Art: on January 1 *R/V Chafee* will be rigged to do fish survey out to 3 nm.
- Peg suggested coordinating the *Chafee*'s collection of data with needs of other organizations
- Ernest Julian (DOH): DOH will have a plan for beach monitoring by the end of November. Cost-benefit vs. baseline surveillance. Prioritize where to place monitoring.
- PA: Support or suggest academic institutions encourage graduate students to pursue R&D on programs important to the collaborative.

- Next steps for DEM plan:
    - Sue will provide collaborative with next version
    - Groups that will fill in gaps: keep working
    - Align collaborative thinking with Coordination Team
    - What kind of regular monitoring is needed (every 2 years, 4 years, 5 years?)
    - Must get information out to broad base of users.
    - Must figure out information technology (IT) issues

The next meeting of the Environmental Monitoring Collaborative is scheduled for December 16, 2004 from 10:00AM to 1:00PM in the Large Conference Room of the Coastal Institute, URI Bay campus, Narragansett.

Meeting Summary recorded by Erin Myers